2006 Performance Track Members' Event

MAY 8–11, 2006 • SHERATON ATLANTA • ATLANTA, GEORGIA

National Environmental PerformanceTrack
U.S. Environmental Protection Agency

Performance Track Celebrates 5 Years of Environmental Leadership

On May 8-11, 2006, nearly 900 people from 47 states and seven countries gathered in Atlanta, Georgia, for the third National Environmental Partnership Summit. Sponsored by the National Pollution Prevention Roundtable; the Performance Track Participants' Association; and EPA's Office of Compliance, National Center for Environmental Innovation, and Office of Pollution Prevention and Toxics; the Summit provided a venue for environmental professionals and students to share innovations in pollution prevention, compliance assistance, and environmental leadership.

Among the featured events was the annual Performance Track Dinner, at which EPA Administrator Steve Johnson congratulated members on their achievements. "Performance Track members are helping EPA meet President Bush's challenge to accelerate the pace of environmental protection while maintaining economic competitiveness," Johnson said. "We appreciate the example of environmental stewardship you are setting for your employees, your communities, and your industry." He announced that Performance Track is celebrating five years of delivering impressive environmental results, and that the program is "proving to be an important catalyst" for changing how EPA approaches environmental protection.

"Performance Track's five years show that individual facilities' improvements quickly add up," Johnson added. "Members have reduced their water use by 1.9 billion gallons, conserved close to 9,000 acres of land, and have increased their use of recycled materials by 120,000 tons. Performance Track members are proving that environmental stewardship and economic prosperity go hand in hand."

Johnson also noted that EPA is celebrating its 35th anniversary this year. He described the ways in which the nation's environment has improved during the Agency's existence, including a more than 50 percent decline in air pollution. Looking to the future, Johnson invited the audience to imagine "what we might achieve if we could get every American to practice environmental responsibility." If every household were to replace one standard light bulb with an ENERGY STAR bulb, for example, the nation would save $600 million in energy bills—enough energy to light 7 million homes, or prevent greenhouse gas emissions equivalent to those of 1 million cars.

EPA Administrator Steve Johnson addressed members at the Performance Track Dinner.

After Johnson's address, senior Agency officials bestowed this year's Performance Track Outreach and Performance Awards, announced Xanterra Parks and Resorts as the newest Performance Track Corporate Leader, and recognized the 75 new members admitted to Performance Track over the past year.

PRESENTATIONS AVAILABLE

Many of the presentations given at the meeting will be available for downloading at **http://www.environmentalsummit.org**

A Short Course in Saving the World

The Summit's opening keynote was given by **Alan AtKisson**, CEO of the Earth Charter Initiative, who provided what he called "a short course in how to save the world." AtKisson observed that humans have not been good at working within the laws of nature, the framework of what is possible and sustainable. "A lot of what we've been doing is testing the boundaries," he said. He noted that people can have huge impacts on the environment, such as the desertification of the Aral Sea in central Asia, once the world's fourth largest body of freshwater. But he pointed to the Aral Sea's rapid recovery in recent years as evidence that we can also fix past mistakes if we try hard enough.

2006 Environmental Performance and Outreach Award Winners

Outreach Awards

- Colonial Acres Golf Course
- Johnson & Johnson World Headquarters
- Rockwell Collins—C Avenue Operations
- U.S. Department of Energy & DynMcDermott Petroleum Operations Strategic Petroleum Reserve

Environmental Performance Awards

- Rohm and Haas Electronic Materials
- Norco Cleaners
- Naval Air Engineering Station

Full details are available online at: www.epa.gov/performancetrack/benefits/2006awardees.htm.

AtKisson offered his approach to solving environmental problems, a four-step method called ISIS (Indicators, Systems, Innovation, and Strategy). The process involves identifying key trends, determining their causes and linkages, devising solutions, developing a strategic plan, and implementing agreements and actions.

"Working Our Way Out of a Job"

The lunchtime plenary talk was given by **Glenn O'Gilvie**, president and CEO of the Earth Conservation Corps (ECC), a nonprofit organization founded in 1989 that works in southeast Washington, DC, one of the nation's most disadvantaged communities. By turns inspiring and heartbreaking, O'Gilvie's story moved many of the Summit attendees to tears as he described how his program has engaged more than 3,500 young people and adults to help clean up the Anacostia River and its surrounding communities against overwhelming odds. The Anacostia, which flows just a few blocks from the Capitol building, has been neglected for decades and is heavily polluted. Some 2 billion gallons of raw sewage are dumped into the river each year from sewer overflows, and toxic pollutants enter the river through stormwater runoff. More than a third (and in some communities nearly 50 percent) of the children east of the Anacostia live below the poverty level, and more than half of the homicides in the District of Columbia take place east of the river. ECC offers a way for young people to get off the streets and into productive pursuits that can help them build a future for themselves. "We're trying to give them tools to survive," O'Gilvie said.

Alan AtKisson gave the opening keynote address at the Summit.

Corps members have removed 5,000 tires from the Anacostia River, helped return bald eagles to the region, and set up a webcam to monitor osprey nests. The program employs approximately 20 young people (ages 17-25) each year, who perform 1,700 hours of work for a monthly stipend. If they complete their term, they receive an additional $5,000 that they can apply toward furthering their education. Nearly 90 percent of ECC members have gone on to higher education. But the realities of life east of the Anacostia are reflected in the fact that nine Corps members have been killed since the organization was started. Some of the 16 bald eagles released to the wild carry their names.

"We're here to work our way out of a job," O'Gilvie said, noting that ECC's mission is to empower southeast DC's endangered youth to take back their river, their communities, and their lives. Two former ECC members attested to

the program's power to change more than the natural environment. Rodney Stotts, who works as the organization's youth program coordinator, told the audience that he had been a drug dealer before he joined ECC. "It's a program that helps people who really want to change," Stotts said. "ECC gave me a hand up when nobody else would," said Lashauntya Moore, another former Corps member who is now employed as ECC's career training coordinator. "Now I want to give a hand up to the next generation."

The Summit's closing keynote was given by **Duane Elgin**, author of *Voluntary Simplicity, Awakening Earth, and Promise Ahead: A Vision of Hope and Action for Humanity's Future.* Elgin began by polling the audience on where they thought humanity currently lies in terms of the human life cycle: toddler, teenager, adult, or elder. The overwhelming response was "teenager." Elgin observed that he has received the same answer from audiences all over the globe. He emphasized that being an adolescent isn't necessarily a bad thing. "Adolescents have huge amounts of energy, idealism, and a hidden sense of greatness," he said. He then asked the audience to identify the main drivers that move adolescents into adulthood. Responses included such things as the desire for independence, a brush with death, and role models. Elgin said that there are two main types of "pushes and pulls" that help propel us into our adult years: adversity trends and opportunity trends. In the world today, adversity trends include issues such as poverty, resource limitations, climate change, and species extinctions. According to Elgin, current adversity trends project to a disastrous "perfect storm" by the 2020s.

Glenn O'Gilvie of the Earth Conservation Corps gave a moving presentation on his organization's work.

On the other hand, opportunity trends include human perception, energy, the universe's ability to regenerate, and freedom. Elgin said that the hope for humanity lies in four "great empowerments"—human perception, human choice, the power of communication, and the power of love.

Elgin then moved from the general to the specific by asking what we as individuals can bring to "this extraordinary time of change and opportunity." Suggestions included:

- Provide information to help people act as better stewards
- Identify and celebrate role models
- Support demonstration projects as places to experiment
- Encourage visions of a green future
- Foster an electronic media that promotes sustainability
- Look deeper into the future (generations ahead)
- Be aware that we are going through a great transition
- Tell meaningful and hopeful stories about the future.

Nearly 900 people attended the National Environmental Partnership Summit.

Save the Date!

The fourth annual National Environmental Partnership Summit will be held in New Orleans, Louisiana, from May 7-11, 2007.

Performance Track Members' Meeting

On Monday, May 8, 2006, more than 100 Performance Track members and stakeholders gathered for program updates and other news from EPA staff and officers of the Performance Track Participants' Association (PTPA). EPA Deputy Associate Administrator Rick Otis launched the discussion by stating that Performance Track exemplifies EPA's efforts to increase environmental protection without harming the nation's competitiveness. "Performance Track members are significant leaders," Otis said. "You are going down a path that not many have gone down before. You represent how we at EPA want to see business conducted."

Otis emphasized that EPA Administrator Steve Johnson and other senior Agency managers are strongly dedicated to Performance Track. "We will be expanding our efforts to talk about the program," he said, "and you will see us working harder to find opportunities to increase benefits to members."

The Summit provided participants with many opportunities to share information.

Progress and Goals

Performance Track Director **Dan Fiorino** provided an overall update on Performance Track, noting eight areas of significant accomplishments during the past year:

1. **Regulatory Incentives:** EPA has added a reduced self-inspections benefit under the Resources Conservation and Recovery Act (RCRA) for Performance Track members, and the Agency will propose a rule on flexible air permits later this year.
2. **Relationship with States:** EPA's work with states on implementing recommendations made in last year's report by the Environmental Council of the States (ECOS) has improved Performance Track's relationship with states, particularly on permitting issues. Also, EPA recently signed a Memorandum of Agreement with Missouri to coordinate work on performance-based environmental programs.
3. **Public Recognition:** Performance Track's website has received more than 3 million hits since the program's inception, and the program added 75 new members over the past year.
4. **Results:** Performance Track has accumulated a significant record of results from members.
5. **Renewals:** Performance Track is close to its goal of maintaining an 80 percent renewal rate (the actual historical renewal rate is currently 78 percent).
6. **Challenge Commitments:** EPA added two national Challenge Commitments in the past year, for water and priority chemicals. The regional and national Challenge Commitments demonstrate that Performance Track can be used to address priority issues and problems.
7. **Outreach to Non-Governmental Organizations (NGOs):** Performance Track is starting a more systematic process of outreach to environmental groups, with a goal of both educating them about Performance Track and learning from their concerns and advice.

8. **Growth of the Program:** Many new companies have become involved in Performance Track over the past year, especially high-profile companies such as Intel and Coca-Cola. More opinion leaders are becoming involved who can help build support for the program.

Fiorino also laid out EPA's goals for Performance Track:

1. Maintain steady incremental growth.
2. Increase the environmental value of the program.
3. Enhance the business value of the program.
4. Transform relationships with facilities, states, communities, and NGOs.
5. Institutionalize Performance Track in EPA and state programs, building it into their fabric.

Progress with States

Andy Teplitzky, federal and state relations team leader for Performance Track, reported on progress toward implementing recommendations from the January 2005 report to EPA by ECOS. Three workgroups were convened to develop an initial series of actions, which were published in the Federal Register on May 15, 2006.

The draft initial implementation actions are as follows:

- Incorporate Performance Track and state programs into EPA and state planning, budgeting, and accountability programs.
- Expedite permitting for Performance Track and state program members.
- Enhance recognition of Performance Track and state program members.
- Facilitate use of existing regulatory and administrative flexibilities for Performance Track and state program members.
- Improve state/EPA coordination of strategic marketing and education activities.
- Combine the three ECOS workgroups into one.

Visit the "Newsroom" section of the Performance Track home page (***www.epa.gov/performancetrack***) to find a link to the complete Federal Register notice.

PTPA Director **Anne Vogel-Marr** provided an update on PTPA's state outreach efforts.

PTPA has established 15 state workgroups to date, covering Arizona, California, Florida, Illinois, Indiana, Iowa, Louisiana, Minnesota, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Texas, and Virginia. Additional states and territories currently targeted for workgroups include Connecticut, Georgia, Kentucky, North Carolina, Puerto Rico, South Carolina, and Tennessee.

The workgroups essentially act as representatives for Performance Track members in their states, working with state officials to communicate and address issues raised by members. In Virginia, PTPA's workgroup, led by Dave Gunnarson of Lockheed Martin, launched an outreach effort with the state's Department of Environmental Quality (DEQ) that resulted in a series of educational presentations to each of DEQ's regional offices on Performance Track and Virginia's Environmental Excellence Program.

> "We will be expanding our efforts to talk about the program and you will see us working harder to find opportunities to increase benefits to members."
>
> Rick Otis
> Deputy Associate Administrator
> U.S. EPA

PTPA is also developing a toolbox to help members with state outreach, with useful resources such as templates for letters to commissioners. Vogel-Marr welcomes suggestions for items to be added to the toolkit; visit ***www.ptpa-online.org*** for contact information.

Andy Teplitzky provided more details on Performance Track's activities with states, describing three main areas of focus:

1. Establishing and maintaining relationships with states through Memoranda of Agreement, monthly conference calls, an annual conference (this year's will be held in Williamsburg, Virginia, from November 16-18), regional/state meetings, state media program association meetings, and the ECOS-EPA workgroups.
2. Providing support to state programs through State Innovation Grants, contractor support, Performance Partnership Grants/Agreements, and state-EPA work plans.
3. Facilitating the implementation of Performance Track incentives in states.

Performance Track Members' Environmental Compliance

The concerns raised earlier this year by environmental groups about Performance Track members' compliance with environmental laws have underscored the need for members to review their compliance records for accuracy. Most of the apparent violations of environmental laws by Performance Track members cited by the groups were based on inaccurate or misleading data. Teplitzky described EPA's Environmental Compliance History Online (ECHO) system, available at www.epa.gov/echo. The ECHO site is a public conduit to EPA's main database, which includes compliance data for federal environmental statutes. Much of the data are supplied by states, and are updated monthly.

"It's important to review your compliance records frequently, perhaps once a month or so," Teplitzky said. Reporting errors in the database are common. If you find mistakes in your facility's records in ECHO, simply click the "report error" button that appears when you call up your facility's data. EPA has "data stewards" in each of the regional offices, each state, and each program that receive and handle error reports.

Progress on Incentives

Chad Carbone of Performance Track's incentives team provided an update on efforts to prioritize air permits for Performance Track members. He said that EPA will focus its efforts initially on states in which Performance Track facilities have permits expiring in the next three years. The Agency will offer training workshops for facilities and permitting authorities starting this summer. Performance Track members also will have access to a national network of permitting experts, and EPA plans to designate someone in each region to help members work with states to get permits prioritized. Performance Track is also developing a number of sample permits, case studies on best practices, and a new internet-based clearinghouse for sharing information on permit issues.

Carbone said that Performance Track members can do their part by ensuring that their permit applications meet the requirements of permit authorities. EPA plans to develop tools and information for members to help them submit complete and high-quality permit applications.

Carbone recommended that interested facilities attend a workshop, comment on the upcoming flexible air permit rule, and contact him if they have an expiring air permit. For more information, and to be placed on an e-mail distribution list for announcement of upcoming workshops, contact Chad Carbone at *carbone.chad@epa.gov*.

Bob Sachs of Performance Track's incentives team described the new reduced self-inspection incentive for Performance Track facilities under RCRA, provided in a new rule that was promulgated on May 5, 2006. Approximately 300 Performance Track members are expected to be eligible for this benefit, which allows Performance Track facilities to self-inspect just once per month rather than once per week. The benefit is available immediately in Virginia and Pennsylvania; it will be available in other states once they adopt the federal rule and are authorized. To take advantage of the rule, Performance Track members must apply for a permit modification. Full details are available on Performance Track's Waste Incentives page, at *www.epa.gov/performancetrack/benefits/regadmin/waste.htm*.

Performance Track at Five

Performance Track program development and member services team leader **Julie Spyres** announced Performance Track's Five-Year Anniversary campaign, formally launched by EPA Administrator Steve Johnson on May 9, 2006, which focuses on educating the public about the program and highlighting the accomplishments of the program's Charter Members. The outreach effort will use the media as well as Performance Track members to raise awareness of the program and its achievements.

The campaign aims to reach a variety of audiences, including the environmental community, current and potential Performance Track members, state-level stakeholders, members' customers, EPA staff, and business members and organizations. Spyres noted that most of the program's outreach to date has been focused on recruitment. Outreach for the Five-Year Anniversary campaign needs to be broadened to cover the program's overall value and benefits to society. It will focus on members' leadership and their results.

Performance Track has created a media kit and a multimedia presentation (which was shown during the meeting), and is developing brand guidelines. Members will receive a set of customizable materials such as a press release template, a drop-in article that they can submit to their local newspaper, and a letter to governors that they can use to help publicize the five-year anniversary. EPA can also help

members work with high-profile media such as major newspapers or television stations. Future issues of P-Track News will include outreach tips and ideas for how members can help publicize the program and its accomplishments.

Spyres announced that EPA will give a special award at next year's Environmental Partnership Summit for the Performance Track facility that does the most to promote the program's five-year anniversary.

Developing Meaningful Performance Track Commitments

David Guest, Performance Track implementation team leader, and Susan McLaughlin, lead for measurement, reporting, and evaluation at Performance Track, discussed members' environmental performance commitments. Guest noted that EPA is taking steps to improve the rigor and relevance of commitments. For example, the national and regional challenge commitments introduced last year are helping to channel members' commitments into priority areas for EPA and states. If compliance reviews reveal that a member's Toxics Release Inventory trends are going in the wrong direction, EPA may ask the member to add commitments in that area. Guest also noted that EPA has begun placing more emphasis on commitments in the application review process.

Susan McLaughlin discussed product-focused commitments, in which facilities report environmental benefits that occur downstream—after products leave the facility. She provided examples of three Performance Track facilities that have made downstream commitments, but noted that only two percent of the current commitments made by member facilities are product-related. Several members in the audience noted that it is more challenging to report on downstream results.

McLaughlin and Guest then presented a possible hierarchy for selecting commitments:

1. Address significant risks to human health and/or environment.
2. Address significant impacts as defined by a facility's EMS and/or external parties.
3. Move from non-product outputs to inputs and product impacts.
4. Address issues beyond the facility fence line (e.g., community projects).

Larry Weinstock, director of EPA's Community Action for a Renewed Environment (CARE) program, described how Performance Track members could fulfill their community outreach commitments by participating in CARE. A dozen communities currently participate in the program, through which they create collaborative partnerships that implement local solutions to reduce toxic releases and minimize exposure to toxic pollutants. EPA provides grant money through cooperative agreements and works directly with the communities, providing technical support, information, and scientific expertise. Weinstock noted that companies and facilities can serve as partners in the program. "Starting a partner community is a way to be recognized as a leader in environmental performance and community responsibility," he said. For more information, visit the CARE website at *www.epa.gov/care*.

Ed Chu, of EPA's Land Revitalization Office, described potential community land reuse or land revitalization measures that Performance Track members could take on properties outside their boundaries. "We'd like to see members working with local development agencies to identify Brownfield sites and support their restoration and redevelopment," he said. Members also could identify and quantify the contaminants being removed from these sites and take credit for those reductions.

The Challenge of Developing New Commitments

During the members' meeting, several long-term Performance Track members raised the issue that it is becoming increasingly difficult for them to come up with four new performance commitments each time they renew their membership in the program.

Performance Track Director Dan Fiorino acknowledged the problem and said that EPA is exploring options such as providing more flexibility in the commitments made by long-term members. He also recommended that members take advantage of Challenge Commitments (each of which counts as two commitments).

A few members, however, encouraged EPA to keep the bar high. "I don't like having to make commitments," one member observed, "but they force us to get better." Another member noted that his facility has had a pollution prevention program in place for 31 years, "yet we never have trouble coming up with new commitments."

Wrapping Up

The members' meeting finished with a round-robin of comments from those in attendance, facilitated by PTPA Executive Director **John Flatley**.

Highlights from Selected Breakout Sessions

Expanding Facility-Level Reporting

This session focused on ways to standardize and encourage environmental performance reporting at the facility (as opposed to the corporate) level. **Beth Ginsberg**, manager of the corporate accountability program at Ceres, described the Facility Reporting Project (*www.facilityreporting.org/*), a multi-stakeholder effort to develop standardized guidance for reporting on the environmental and social performance of facilities.

The Facility Reporting Project's guidance is designed to be compatible with the Global Reporting Initiative, a corporate-level sustainability reporting system created in the 1990s, which is used by more than 800 companies worldwide. The guidance contains six key elements: reporting principles, instructions on how to prepare a report, a facility overview, economic indicators, environmental indicators, and social indicators.

The project is in its pilot phase, and is currently being tested with several Performance Track facilities. The project's guidelines will ultimately support performance-focused regulatory and voluntary programs and can help government agencies looking to advance best practices and sustainability leadership with corporate partners.

Carol Kraege, manager of the multimedia compliance group at the Washington Department of Ecology, described her agency's Industrial Footprint Project, which aims to test a non-traditional approach to measuring facility performance. The project's long-term goals are to reduce facilities' social, economic, and environmental footprints using available resources.

Concurrent breakout sessions on a wide variety of topics were held throughout the Summit.

"Currently we measure compliance, so we get compliance," Kraege said. "But if you measure the footprint, you should reduce the footprint. You get what you measure." A footprint approach would involve a collaborative relationship with stakeholders in which they choose indicators, measure an industry's or facility's footprint, and use the measurement to drive priorities and actions.

Kraege noted that while some footprint data are easy to obtain (such as criteria pollutant emissions), other data may be harder to find or may not be publicly available. The Washington Department of Ecology is currently working on a pilot project with the state's pulp and paper industry to develop a sector footprint for the industry, along with baseline footprints for each participating mill.

Stephanie Busch, program manager of the Georgia Department of Natural Resources' Pollution Prevention Assistance Division, talked about the efforts of Georgia's P2AD Partnership Program to begin tracking facilities' progress toward becoming sustainable. The P2AD Partnership Program, modeled after Performance Track, wanted some way to judge facilities' sustainability performance (including social metrics), and to develop metrics that could be used by other states, thus promoting harmonization and standardization. After investigating several options, including using the Facility Reporting Project guidelines, the program decided to bring stakeholders together, find out what information they are already collecting, and how they are using it. Georgia plans to present its plan at the Multi-State Working Group meeting in June.

Update on State Performance-Based Environmental Leadership Programs

Angela Vitulli, senior associate at Industrial Economics Inc., started this session with an overview of the growth and evolution of state environmental leadership programs. About half the states have programs or are actively developing them, according to Vitulli. "State programs are nimble," she said. "They frequently change criteria and incentives to match the needs of their members." She also noted that states are increasingly integrating performance measurement into their programs.

Many states have multiple tiers in their programs to accommodate facilities at different performance levels; typically one of these tiers is on par with Performance Track. Vitulli noted that state programs are increasingly trying to quantify their members' performance. More states also are aggregating members' environmental results, and the Texas program reports on its members' economic savings.

Cheryl Taylor, executive advisor to the commissioner, Kentucky Department for Environmental Protection, described KY EXCEL, Kentucky's environmental leadership program. The program offers four membership levels. Members must complete one or more environmental projects each year, depending on their membership level. "Our program is based on results and projects, rather than compliance," Taylor said. "We decided that projects would drive our program, and we're open-minded about what a project can be—from reducing a chemical in your waste stream to creating a butterfly garden or building a fitness trail." Taylor also noted that Kentucky will credit facilities that already participate in Performance Track rather than requiring them to duplicate their efforts.

Jill Cooper, director of sustainability at Colorado's Department of Public Health and the Environment, described Colorado's Environmental Leadership Program. Launched in 1997, Colorado's is one of the oldest state environmental leadership programs in existence. It is funded entirely by a Performance Partnership Grant from EPA. The program has several tiers, with the gold level being the highest. "Before we let a company into the gold level, we send an email to 500 people across the agency; if anyone disagrees, we negotiate and then make a decision," Cooper said.

"Programs like this have to be kept simple and flexible, otherwise you'll scare companies away," Cooper said. She also observed that it is difficult to develop and offer incentives, especially to the best performers. "Recognition is important, but the relationship with the regulator is the most valuable benefit to members."

Sharon Baxter, pollution prevention director at the Virginia Department of Environmental Quality's Office of Pollution Prevention, described the Virginia Environmental Excellence Program (VEEP). Like the other programs mentioned above, Virginia's program has several membership tiers, and the program's application process is coordinated with that of Performance Track. The program offers a variety of incentives to its members, including discounts on permit fees. Members recently formed a VEEP Participants' Association, and will hold their first conference next autumn.

According to Baxter, key lessons learned from Virginia's experience include the following:

- Measurement is critical.
- Keep it simple.
- Maintaining relationships with facilities is a challenge.
- Connections with feeder programs may/may not be successful.
- Marketing may not be necessary, but providing program name recognition is very important.

Empowering a Company's Value Chain to be Greater Environmental Stewards

This session focused on efforts to improve the environmental performance of a facility's or company's suppliers.

Vicki Fisher, enterprise environment, safety, and health manager of Rockwell Collins, said that her firm has implemented a "lean supply chain" in which the company works with suppliers to reduce waste, cycle time, and inventories. Rockwell Collins communicates what it expects from suppliers through education, Fisher said. "We want them to become virtual members of Rockwell Collins's commodity team." Rockwell Collins holds supplier conferences and has implemented a process of strategic sourcing in which the needs of stakeholders within Rockwell Collins are integrated, providing an opportunity for environmental staff to get involved in the sourcing decisions. Evaluating suppliers' performance can be handled by partnering with quality audit teams, which already evaluate suppliers onsite, Fisher said. Chemical management service providers, which manage the chemical supply chain, can also be used to help

manage and audit the environmental performance of suppliers.

"Applying your value system down the supply chain is a challenge, but that's exactly what we want to do," said **Tish Lascelle**, director of communications and training, worldwide environmental affairs, at Johnson & Johnson. "We want to do business with companies that share our values." J&J currently uses approximately 900 external manufacturers that make and label products for the company.

In 1999, J&J added language on environment, health, and safety practices to its contracts with external manufacturers, targeting manufacturers seen as "high risk." The company also added requirements related to the employment of young persons. In 2000, the company added new minimum standards for suppliers regarding environmental compliance and ISO 14000. In January 2004, the scope of audits was expanded to all external manufacturers." More than 90 percent of J&J's external manufacturers have been audited since 1999. Less than 1 percent had unacceptable performance, according to Lascelle. The company works with poor performers to help them improve, rather than just terminating their contracts.

In 2006, J&J developed a set of standards for responsible external manufacturing, which includes ethics, labor, and management systems in addition to environmental performance. "These standards close the gaps where legal requirements do not exist or are not satisfactory to protect human rights and the environment," Lascelle said. Challenges in implementing the standards include balancing "universal" and local norms, and accepting continuous improvement as a reality. "Our suppliers say they want to do this, but they need help; we have to show them how to comply," Lascelle noted. J&J also participates in EPA's Green Supplier Network.

Among the challenges of greening the supply chain, Lascelle said, are creating a sustainable funding model, collecting and verifying savings to build the business case, motivating suppliers to maintain lean thinking in their business decisions, and reaching second-tier suppliers.

Chris Lane, senior director of environmental affairs at Xanterra Parks and Resorts explained that his company's value chain includes suppliers, vendors, guests, and the National Park Service. Xanterra sets a policy of environmentally preferable procurement, and then invites potential suppliers to compete. The firm includes environmental terms in all of its contracts with suppliers, and has a policy for vendors on product packaging. Housing and transportation are also subject to environmental standards: new buildings must meet LEED standards and new car purchases must comply with Xanterra's internal corporate average fuel efficiency standard of 30 miles per gallon.

Lane noted that one of the major challenges in Xanterra's green purchasing effort is reconciling sustainability and cost-effectiveness in making purchasing decisions. "We fight that battle with every decision," he said.

Building Business Value in Voluntary Environmental and Habitat Protection Initiatives

Bob Johnson, acting president of the Wildlife Habitat Council (WHC), described his organization's work with facilities (including a number of Performance Track members) to restore and conserve land. WHC currently works with approximately 1,500 facilities, with 2.5 million acres of property engaged in habitat protection.

"Biodiversity is the lifeline of the future," Johnson said. "We have to take the opportunity to protect every acre of land we own, and we want to make habitat protection part of the operation of a company." Johnson encouraged Performance Track facilities to consider taking on a wildlife habitat commitment. WHC can help by providing access to its wildlife biologists and its existing corporate programs.

Tim Bent, director of environmental affairs at Bridgestone Americas Holding, described his company's involvement with Performance Track and WHC. "We wanted to use ecological restoration to preserve the value of our land," Bent explained. Bridgestone-Firestone has worked with WHC on three projects, which have saved the company approximately $60 million, according to Bent.

Bent introduced **Jim Pridgen**, plant manager of Bridgestone's plant in Wilson, North Carolina, who discussed the benefits that facilities can gain from habitat protection. Pridgen said that habitat projects provide quantifiable improvements, an opportunity for employees and the community to work together on environmental projects, and an opportunity to put idle land assets to productive use.

Pridgen emphasized the community benefits of habitat protection, including educational opportunities for local schoolchildren. "Volunteering on habitat protection provides a way for employees to give back to the community," Pridgen said.

Gina MacIlwraith, environment, safety, and health area leader at Monsanto's Muscatine, Iowa, plant, talked about her facility's long involvement with a local nature preserve and the restoration of a prairie site. MacIlwraith said that habitat protection projects can provide many benefits to facilities, including:

- Providing opportunities to build relationships with non-traditional partners.
- Enhancing property boundaries and erosion control.
- Supporting wildlife habitat.
- Providing community rest and relaxation areas.
- Enhancing the community's familiarity with, respect for, and support of the facility.

Among the challenges, MacIlwraith noted that:

- Quantifying the business value of habitat protection projects is not easy.
- Budget constraints can make implementing or sustaining projects difficult.
- Working with the external community can create challenges.
- Broadening the core group of volunteers can be difficult.
- Projects like these require patience and perseverance.

Corporate-Community Partnerships in Your Watershed

This session highlighted how General Motors, Earth Force, Dunwoody Nature Center, and Holy Cross Episcopal School collaboratively addressed local water quality issues through an educational partnership.

Chris Boehle, an environmental engineer from General Motors who has been an integral part of the Global Rivers Environmental Education Network (GREEN) partnership in Atlanta, began the session by facilitating a group definition of "community." Participants threw out ideas until a common definition was established: "community is made up of all those we interact with." It was with that introduction that Boehle stressed that forming partnerships on environmental issues, such as watershed protection, is mutually beneficial and presents an "opportunity for corporations to meet real community needs."

The partnership between General Motors, Earth Force, Dunwoody Nature Center, and Holy Cross Episcopal School centers on GREEN, a national environmental education program run by Earth Force. With more than 8,000 students reached last year, GREEN is focused on classroom studies, water quality monitoring in the field, pollution prevention, and community action.

In Atlanta, the program has focused on preserving 22 acres of DeKalb County's Dunwoody Park as a natural classroom for environmental education. Employees from the GM facility in Doraville volunteer to work with students from Holy Cross Episcopal School on water quality monitoring and remediation. However, the program is not only about improving the environment. **Alyssa Hawkins**, director of the GREEN program, stressed that the program is really about "creating a new generation of citizens who have the skills to engage." And engage is exactly what the students from Holy Cross did. While monitoring the local watershed, students found high coliform levels along one tributary. With the help of volunteers from GM, they were able to trace the pollutants back to a leaky septic tank. The students then shared that information with the local enforcement agency and the problem was addressed.

The program in Atlanta is an example of a growing number of similar partnerships around the country. In the last six years, GM has expanded its involvement in the GREEN program from 12 to 60 participating manufacturing plants, with 315 GM employees volunteering last year.

The panel discussion was followed by a poster session by Holy Cross students. Their displays showed different methods of water quality monitoring and results. Participants spent the remainder of the session viewing the displays and talking with the students, who were available to answer questions.

The Five Ws of Performance Measurement

This session explored the "Who, What, When, Where, and Why" of measuring environmental performance. **Lisa Lund**, deputy office director of EPA's Office of Enforcement and Compliance Assistance (OECA), started the discussion with an overview of OECA's performance measurement activities. "OECA was famous in the past for measuring its own activities," Lund said, "but output measures don't give you information on progress toward your goals and objectives."

Today, she noted, OECA is under increasing pressure to demonstrate how its activities contribute toward saving human lives. "The viability and future funding of our programs depend on

robust performance measurement, using outcomes to the greatest extent possible," she said. OECA is currently studying what other agencies at the federal and state levels are doing to measure outcomes, as well as working internationally to see what other countries are doing.

Among OECA's initiatives to improve measurement of outcomes is the State Review Framework, a process developed in conjunction with ECOS to review compliance and enforcement and to provide a mechanism by which states can give EPA information on outcomes.

Terry Grogan, an environmental protection specialist with EPA's Pollution Prevention Division, gave a presentation on the Pollution Prevention Results Task Force and the Pollution Prevention Results Data Management System. The purpose of the Pollution Prevention Results Task Force is to develop a national measurement framework to capture environmental and economic outcomes from the implementation of pollution prevention, and is a joint project of the National Pollution Prevention Roundtable and the eight regional Pollution Prevention Resource Exchange (P2Rx) Centers. The data management system, which is "on the brink of implementation," is a national data bank that can be used to demonstrate the successes of pollution prevention.

To date, the project has developed a set of core measures and a data dictionary, and has designed a national data collection process. Thirty state and local pollution prevention agencies have signed Memoranda of Agreement to participate.

Much of the action now is at the regional level, Grogan said. Regional web-based aggregation tools are now in place, and the P2Rx Centers are conducting training and outreach. A report on pollution prevention results from state and local programs in 2001-2003 is being prepared. Future needs include dissemination of data collection "best practices" and tools, refinement of the data dictionary, development of data guidance, and establishment of reporting schedules. Grogan said that the task force is looking into ways to integrate the data system with Performance Track and other programs. He also noted that all EPA grantees are now required to measure outcomes and outputs, and will receive "points" for participating in the national pollution prevention database. More information on the task force and the data management system is available at *www.p2.org/workgroup*.

Burton Hamner, director of Cleaner Production International, discussed the sustainability reporting guidelines of the Global Reporting Initiative (GRI). Hamner explained that the GRI was driven by the need for a standard way of reporting, as well as the need to provide comparable and consistent data to corporate social responsibility investors. Hamner noted that ISO is also currently developing a corporate social responsibility standard. "We don't know which one will come out ahead," Hamner said, "but GRI has more traction."

Performance Track's lead for measurement, reporting, and evaluation, **Susan McLaughlin**, described Performance Track's approach to measurement, which she described as a meld between government reporting systems and self-reporting by facilities. Performance Track's indicators draw on GRI's guidelines to report member facilities' environmental performance. Members set specific, quantitative targets and report annually on their progress. Performance Track uses a standardized application and reporting process that increases transparency and allows data to be aggregated, compared, and analyzed across the membership. EPA uses reported data to demonstrate progress of facilities individually as well as collectively.

Greening the Product Lifecycle

This session focused on green purchasing and other methods of improving the sustainability of products throughout their life cycle.

Rob Guillemin, pollution prevention coordinator for EPA Region 1, provided an overview of green purchasing. Guillemin noted that traditional purchasing goals are price, performance, and availability, and purchasers typically aim for a point at the intersection of these three goals. In green purchasing, the goal of performance is expanded to include production efficiencies, waste reduction, energy conservation, regulatory compliance, and health benefits. The concept of price is similarly expanded to include insurance, compliance, and other associated costs. Availability is expanded to include issues such as efficient "just in time" production, reusable shipping containers, and product takeback.

"This shift into a product lifecycle perspective is tough to make," Guillemin observed. Institutionalizing green purchasing involves developing purchasing

policies, reviewing contracts and writing specifications, conducting market research, verifying the performance of green products, and educating end-users and suppliers.

Initially, Guillemin said, green purchasing represented a sort of "clamp-down" in which purchasers set environmental and social standards for suppliers. Today, driven in part by increasing globalization, green purchasing has become more of a two-way street, with buyers and sellers benefiting through shared cost savings, reduced environmental impacts, and enhanced business relationships. "The role of procurement has been transformed from seeking the lowest cost to seeking the best value, from an adversarial relationship with suppliers to a collaborative one, from isolated transactional costs to an integrated strategic activity," Guillemin said.

Paolo Legaspi, chemical engineer with the National Defense Center for Environmental Excellence described the U.S. Army's sustainable building removal initiative. The Army has 27 million square feet of surplus wood-framed buildings that would cost $350 million to demolish and would generate more than 18 million tons of debris over the next 15 years. Legaspi said the Army's goal is to divert at least 50 percent (by weight) of construction and demolition debris from landfills.

The alternative to straight demolition is "deconstruction," in which buildings are disassembled (using a variety of methods) and materials are reused. Legaspi's firm has been working with the Army to develop a software tool for assessing the potential for deconstruction, and has assembled a database to facilitate the reuse of salvaged building materials.

Sara Ethier, director of environmental operations at 3M, provided a brief description of the Global Environmental Management Initiative's (GEMI) supply chain tool, available at *www.gemi.org/supplychain/*. The tool can help companies and facilities identify, prioritize, and implement opportunities to create business value in the supply chain through environment, health, and safety excellence. "Supply chains are not simple anymore," Ethier said. The globalization of enterprises and the outsourcing of key functions have made managing the environmental performance of the supply chain a much more complicated task than it used to be, and tools such as GEMI's can help managers navigate this process.

Leading by Example: Environmental Improvement in Action

At this special poster session at the Environmental Summit, two dozen organizations and facilities presented environmental improvements made to their operations and products within the last five years. Attendees voted on their favorite projects; the winning posters are listed below.

Most Cost-Effective Best Practices

- Dow - West Virginia Operations, for demonstrating the recovery and reuse of demolition material.

Most Transferable Best Practice

- Brownwood Recreation Center, for exhibiting a project on growing food using hydroponics.

Most Innovative Best Practice

- BMW Manufacturing, for a landfill gas-to-energy project.
- Noramco, a Johnson & Johnson facility, for its demonstration of a poppy development project that greatly reduced the environmental impacts associated with processing the poppy at the plant.

Most Environmentally Beneficial Best Practice

- University of Tennessee, for its Pigeon River recovery project.

Most Collaborative Best Practice

- Bechtel Jacobs, for demonstrating a characterization of a federal facility agreement site.

Who in the World is Using Performance-Based Programs?

This session focused on performance-based environmental leadership programs that are being implemented outside of the United States.

Performance Track's **David Guest** described efforts to develop performance-based programs in Central America, through a regional assis-

tance effort funded largely by the U.S. Agency for International Development. Guest observed that Central America has a unique opportunity to bring in performance-based programs "right from the beginning, bypassing command and control, jumping directly into innovative programs and tools." Work to date has mainly been on capacity building, such as providing training on environmental auditing, EMS, voluntary programs, and registration/accreditation systems. Central American officials have gone on site visits to Performance Track facilities in Puerto Rico, and the Performance Track auditor training course is being translated into Spanish.

Jenna Kunde, director of strategic development at WasteCap Wisconsin, described how Wisconsin modeled its Green Tier program on a similar environmental performance-based initiative in Bavaria. The Bavaria Pact is an agreement between government and businesses in which companies promise to do their best to minimize their impact on the environment in exchange for regulatory and administrative incentives from the government. According to Kunde, "virtually all" large Bavarian companies are founding members of the pact, which currently has 4,250 participants. The pact includes joint industry/state targets, such as reducing carbon dioxide emissions by specific amounts over a target period, as well as requirements such as the implementation of EMS.

"Collaborative governing is different from regulatory governing," Kunde said. "We're seeing the use of performance data to inspire, not to control. It promotes transparency and trust."

Larry Sperling, senior advisor at the U.S. Department of State's Bureau of Oceans and International Environmental and Scientific Affairs, provided an overview of performance-based programs in Mexico and Latin America. "There's a growing awareness and interest in Latin America of the link between cleaner production and competitiveness," Sperling said. But while governments have begun implementing policies, programs, and partnerships to promote cleaner production, EMS, and energy efficiency, they have encountered "a proliferation of obstacles." The foremost of these obstacles is access to financing. "Money's available, it's just getting it that's the challenge," Sperling said. Other obstacles include the scarcity of technical know-how and the limited investment of multinationals compared with their influence in Asia.

Mexico is a clear leader in the development of performance-based programs, along with Chile, Argentina, Brazil, and Colombia. El Salvador, Nicaragua, and Peru are also working on innovative programs. Sperling described Mexico's Clean Industry Program, which incorporates pollution prevention, EMS, and environmental auditing. Sperling also described Chile's sectoral agreements on cleaner production with more than 1,200 companies, which set specific goals with reportable indicators.

R. Davis Lane, executive director of the Voluntary Protection Program Participants' Association (VPPPA), described Ireland's Voluntary Protection Program. The program arose from an understanding that the traditional inspection-based, one-size-fits all model wasn't delivering the improvements in worker safety and health that Ireland was seeking. The Health and Safety Executive for Northern Ireland, and the Health and Safety Administration of Ireland, sent a fact-finding delegation to the United States and developed a pilot project to transpose the U.S. Occupational Safety and Health Administration's Voluntary Protection Program (VPP) to Ireland. A letter of agreement was signed by the three partners in 2003.

The pilot project is being run with eight manufacturing companies that operate in Ireland and also participate in VPP in their US operations. VPPPA recruited special government employees and asked them to go to Ireland to help them implement the program. Lane said that the pilot project has been a great success, with its influence being felt in the supply chain and the workforce.

How Performance Track Members Have Responded to the European WEEE, RoHS, and ELV Directives

Participants in this session learned about the European Union's Waste Electrical and Electronic Equipment (WEEE), Restriction on Hazardous Substances (RoHS), and End of Life Vehicle (ELV) directives, and the strategies that Performance Track members have developed to respond to these directives.

Stuart Sleeman of Sensata Technologies explained that the directives affect manufacturers worldwide, not just in Europe. Manufacturers who make products or components for products sold in

Europe or in other countries that adopt the EU directives are all affected.

The WEEE directive sets criteria for collection, treatment, recycling, and recovery of waste electrical and electronic equipment, Sleeman said. It makes producers responsible for transport from collection facilities, and financially responsible for treatment, recovery, and disposal.

The RoHS directive is essentially a subset of WEEE; it is designed to facilitate the dismantling and recycling of waste electrical and electronic equipment by restricting the use of hazardous substances in manufacturing.

The directives create many challenges for manufacturers, especially in cases where products have to be redesigned or new materials must be used in order to comply, and in cases where outside suppliers provide components.

"Reliability is an important issue," Sleeman said. "If we have 20 years of testing on a part that we now have to change in order to comply with these directives, the reliability testing has to be done again." When new parts are being introduced, it can create a "logistics nightmare" during the period when both the new parts and older, non-compliant parts are still in inventory.

"Collecting data is a cross-functional task and takes time for a company to learn," Sleeman said. "Even if your company isn't yet affected by these directives, it's worthwhile to begin collecting content data about your products. The level of effort to collect data can be significant."

Sleeman also noted that a number of other countries and individual U.S. states are adopting similar regulations and standards. China has adopted RoHS and is preparing WEEE legislation. "This is a global issue," he said.

Bill Kierl, manager of product and business support at Motorola, said that most of his company's products must comply with the new directives. "The traditional regulatory focus has always been on the manufacturing part," Kierl said. "But now it's affecting design, sales, distribution, and cradle to grave responsibility." RoHS, WEE, and ELV require fundamental changes to engineering principles, according to Kierl. "New materials and processes must be developed and understood in order to be used in new designs." Much of the new design and manufacturing must be based on very short-term knowledge, unlike previous designs and materials that had undergone extensive testing and refinement.

"When we designed before, we just cared about fit, form, and function," Kierl explained. "Now the engineers have to consider new parameters such as chemistry or legal criteria, which they weren't taught about in school." Introducing new materials also adds risk as electrical and mechanical properties change. In some cases entirely new manufacturing processes may need to be developed, Sleeman said, some of which may introduce other environmental challenges. "For example, tin-lead solder on a chip melts at approximately 185°C. But if you now have to use silver-copper solder, the melting point is 232°C. That means you burn more electricity, and put more heat in the factory, so you have to use more power to run the air conditioning system. Furthermore, all the other components on the chip were designed to be heated only to 185 degrees. We have to work with all our suppliers to determine if their components can survive the higher temperature."

Logistical issues need to be considered as well, Sleeman said. "When I'm producing two products, one that's RoHS compliant and one that's not, I need to determine where each one can be sold. That means developing a new IT system to manage this aspect of sales. It also means we now have twice as many part numbers as we had before, and we now have to manage two different bins of parts, one with no-lead solder and one with lead solder. Our opportunity for error just doubled."

Dave Hillman, senior materials and process engineer with Rockwell Collins said that since military, avionics, and medical products are exempt from the new directives, most of Rockwell's products do not need to comply. However, many of Rockwell's suppliers must comply with the directives, so Rockwell needs to adapt as well. Hillman raised many of the same reliability and manufacturing process concerns discussed by Sleeman, as well as issues with legacy products. "We still service equipment that's 40 years old," Hillman said. "Changes in materials will affect our ability to repair these products."